

Application No. 09/889,751  
Attorney Docket No. PG3604USW

**REMARKS / ARGUMENTS**

Claims 1, 3-42 remain in this application. Claim 1 has been amended to better describe the orientation of the openings to the retainers. Claims 7, 10, 20, 21, 25, 26 and 33 have been amended to better define the carrier. Claim 16 has been amended to eliminate a phrase which added nothing to the claim-- the scope of the claim being unchanged by the amendment. Claim 43 has been deleted as not complying with standard US claiming practice under 35 USC 101.

In the official action dated 5/19/04, the examiner rejected claims 1, 3-8, 10-22, 26-39 and 41-43 as anticipated by Davies et al (GB 2242134). Claims 26 and 40 were rejected as anticipated by Everett (EP 0469814). The examiner also indicated that claims 1, 3-9, 15, 21-24, 26-32 and 40 were unpatentable under the judicially created doctrine of obvious type double patenting, in light of the claims granted in applicant's US patent No. 6,679,254.

**I. Claims are Novel over Davies**

Claim 1 has been amended herein. Claim 1 is directed to a medicament cartridge for use in an inhalation device comprising a carrier. The carrier has a substantially planar first face and a plurality of medicament retainers defined by openings in said first face. The openings are directed in a common direction and are positioned in a single spiral path arrangement along said first face.

Claim 1 stands rejected as allegedly being anticipated by GB 2242134 to Davies. Davies describes an elongate strip 401 having a length that is much greater than its width. The strip is accommodated in the inhalation device by coiling the strip. The coil is unrolled to present each strip serially. No openings are present in the edge surface of the Davies strip which lies in the plane (identified by the examiner). Further the retainer openings in the Davies strip are not directed in a common direction as claimed in claim 1, but rather are oriented radially on the coil. As Davies does not teach a planar face having retainers

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having openings which are oriented in a common direction, claim 1 contains novel elements not found in Davies. As Davies does not anticipate claim 1, withdrawal of the rejection of claims 1, 3-18 over Davies is appropriate.

Claim 19 recites "a carrier having a substantially planar first face having a plurality of medicament doses *thereon*, wherein said doses are in a single spiral path arrangement *along said first face*." Claim 19 was rejected as anticipated by Davies. The examiner has failed to appreciate that claim 19 recites a face having doses "thereon." Further, the doses are arranged in a single spiral path arrangement "along said first face." The strip edges in Davies do not have doses "thereon", let alone doses arranged in a single spiral path arrangement "along said first face." As such, Davies does not anticipate claim 19.

Claim 20 was also rejected as anticipated by Davies. In this amendment, applicant has amended the claim to better describe the carrier structure. The elongate carrier comprises an upper surface and first and second side surfaces, said side surfaces being narrower than said upper surface, said upper surface having a plurality of medicament doses thereon, wherein said elongate carrier is (i) storable in a flat spiral configuration wherein said upper surface is presented substantially in a single plane and (ii) is, in use, extended from said plane.

Davies, in contrast, has an "upper" surface (i.e., the edges of the coiled strip) that are narrower than the broad section of the coil along which the blisters are positioned. Further, the "upper" surface is not extended in use from the plane. The Davies coiled strip is merely unwound, keeping the cover and base layers substantially in the same plane, to sequentially separate the cover from the base sheet allowing the contents of each blister to be exposed in turn.

As such, Davies does not contain an "elongate carrier comprises an upper surface and first and second side surfaces, said side surfaces being narrower than said upper surface," the upper surface of Davies does not have "a plurality of medicament doses thereon," and the Davies strip is not an "elongate carrier is (i) storable in a flat spiral configuration

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wherein said upper surface is presented substantially in a single plane and (ii) is, in use, extended from said plane." Davies does not anticipate claim 20.

Claim 21, in pertinent part, recites: "a medicament carrier having a substantially planar first face and a plurality of medicament retainers *defining openings in said first face, said openings being directed in a common direction* and forming a single spiral path arrangement along said first face". Davies does not have medicament retainers defining openings in a substantially planar first face. Further, the openings of the retainers in Davies are not facing a common direction. Davies does not anticipate claim 21. Claim 22-32 and 42 depend on claim 21 and are novel for the same reasons.

Claims 22-25 recite a "disk." The examiner indicated that a disk is defined as "a circular object", and that the coiled strip in Davies is such an object. The American Heritage dictionary however, defines "disk" as "a thin, flat, circular plate" (page attached). The applicant uses the term "disk" in its standard usage to imply a flat plate-like structure. Applicant repeats the assertion that Davies coiled strip is not a "disk" as the term is commonly used, and claims 22-25 (and any claims dependent there-from) are novel for this additional reason.

Claim 33 recites a in part, an elongate carrier having a generally flat first surface, a plurality of medicament retainers positioned along the flat first surface, each retainer being defined by an opening in said flat first surface, wherein said elongate carrier is storable in a spiral configuration such that said openings are directed in a common direction.

Davies does not describe an elongate carrier having a generally flat first surface with a plurality of medicament retainers positioned along the flat first surface. Further, Davies does not describe an elongate carrier where the openings are directed in a common direction when stored in a spiral configuration. For these reasons, Davies does not anticipate claim 33, nor claims 34-40, each of which depends directly or indirectly from claim 33.

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Claim 41 has been amended to recite an inhalation device comprising, in pertinent part, "an elongate carrier having a plurality of doses thereon, wherein said elongate carrier is storable in a flat spiral configuration; and a mover in communication with the elongate carrier for *helically extending the elongate carrier such as to serially move each dose to an access position.*"

The device described in Davies stores an elongate strip of blisters in a coil to minimize its size to fit it within the body of an inhalation device. The blister strip is sequentially uncoiled without ever leaving the plane of the coil. As such, Davies does not describe a mover for *helically extending the elongate carrier* such as to serially move each dose to an access position, as called for in claim 1. Because of this, claim 41 is novel over Davies.

## II. Claim 26 is Novel over Everett (EP 0469814)

Claim 26 recites, in pertinent part,

"a substantially planar medicament carrier *plate* having a generally flat upper surface, having a plurality of medicament *retainers positioned along said flat upper surface*, said retainers having openings in said upper surface, and said *openings positioned in a single spiral path arrangement*, each medicament retainer having a seal"

Everett describes an elongate strip, like that described in Davies. The Everett strip, like Davies' strip, is rolled into a coil. It is unrolled and the back of the strip is hit with a hammer to cause the opposite side of the strip to burst and the contents of the blister to be released into the device. The Everett strip does not describe a carrier plate having a flat upper surface. Further, Everett does not describe a carrier plate having openings in the flat upper surface of the plate, which openings are positioned in a single spiral path arrangement. For these reasons, applicant asserts that claim 26 is not anticipated by Everett and claim 26 is in condition for allowance.

Claim 40 was rejected as anticipated by Everett. Claim 40 depends from claim 26 is novel for the same reasons.

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**III. Application Claims Are Not An Obvious Variation of Subject Matter**  
**Claimed in US 6,679,254.**

Application claims 1, 3-9, 15, 21-24, 26-32 and 40 stand as unpatentable for obvious-type double patenting over claims 1-4, 7-9, 11, 12, 14, 17-21, 29 and 31-36 of US Patent No. 6,679,254. Applicants respectfully traverse this rejection.

Claim 1 of the '254 patent requires in pertinent part

a plurality of medicament retainers in a *concentric circular path arrangement*, wherein *each circular path is independently rotatable relative to and is lockingly engageable to an adjacent ring thereto.*

Claim 1 of the present application requires in pertinent part:

a plurality of medicament retainers defined by openings in said first face, said openings being directed in a common direction and being positioned upon a *single spiral path arrangement* along said first face.

The examiner indicated that "it would have been obvious to one of ordinary skill in the art that a concentric circular path is one that is a single spiral path arrangement with a common point of origin." The applicant fails to see the point the examiner is attempting to make. A circular path is one that occupies a fixed radial distance from a central point. Thus, a 360 degree rotation of such an arrayed carrier results in arriving at the same fixed point in the circular array, as the radial distance from the central point does not change. A spiral array, on the other hand, requires the radial distance from the center point to be increase or decrease as the array travels around the center point, such that the same point is *never reached* regardless of the amount of rotation. *Thus, a circle is not a spiral and the two are not equivalent or obvious modifications.*

Further, claim 1 of the patent requires that *each circular path is independently rotatable relative to and is lockingly engageable to an adjacent ring thereto.* No corresponding features or function is found in claim 1 of the present application. Note that the single

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spiral array avoids using a plurality interlocking/independently rotating concentric circular arrays, and this is a much more simplified structure from that disclosed in claim 1 of the '254 patent.

Claim 17 of the '254 patent requires, in pertinent part:

a medicament carrier having a plurality of medicament retainers in a *concentric circular path arrangement*; and  
a mover for moving the medicament carrier relative to the housing so as to bring successive medicament retainers individually into communication with the airway.

Similarly, Claim 29 of the '254 patent requires, in pertinent part:

a medicament carrier having a plurality of medicament retainers in a *concentric circular path arrangement*, each medicament retainer having a seal;

Application claim 21 recites in pertinent part:

a medicament carrier having a substantially planar first face and a plurality of medicament retainers defining openings in said first face, said openings being directed in a common direction and forming a *single spiral path arrangement* along said first face

Similarly, application Claim 26 recites in pertinent part:

a substantially planar medicament carrier plate having a generally flat upper surface, having a plurality of medicament retainers positioned along said flat upper surface, said retainers having openings in said upper surface, and said openings positioned in a *single spiral path arrangement*, each medicament retainer having a seal;

Applicants respectfully traverse the examiner's position that patent claims 17 and 29 render application claims 21 and 26, respectively, unpatentable for obvious-type double patenting. As applicants discussed above, a circular path is one that occupies a fixed radial distance from a central point. The radial distance from the central point does not change as the central point is traveled around. A spiral array as claimed in application claims 21 and 26, requires the radial distance from the central point to be increase or decrease as the array travels around the central point and, as such, that the same point is

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*never reached regardless of the amount of rotation. Because of this, a circle is not a spiral and the two are not equivalent or obvious over the other.*

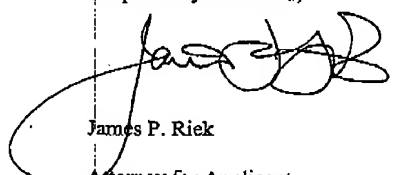
Withdrawal of the obvious-type double patenting rejection is requested.

## CONCLUSION

In light of the amendments and arguments made herein, all issues raised by the examiner to date have been addressed. Claims 1, 3-8, 10-22, 26-39 and 41-43 are not anticipated by Davies. Claims 26 and 40 are not anticipated by Everett. Application claims 1, 3-9, 15, 21-24, 26-32 and 40 are not unpatentable for obvious-type double patenting over claims 1-4, 7-9, 11, 12, 14, 17-21, 29 and 31-36 of US Patent No. 6,679,254. As the claims are asserted to be in a condition for allowance, applicant requests that a timely Notice of Allowance be issued in this case. If any matters exist that preclude issuance of a Notice of Allowance, the examiner is requested to contact the applicant's representative at the number indicated below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge any fees or credit any overpayment, particularly including any fees required under 37 CFR Sections 1.16 and/or 1.17, and any necessary extension of time fees, to deposit Account No. 07-1392.

Respectfully submitted,



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